6BN8

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TWIN DIODE—HIGH-MU TRIODE

9-PIN MINIATURE TYPE

With heater having controlled warm-up time

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:		
Voltage (AC or DC)	6.3	volts
Current	0.6 ± 6%	amp ←
Warm-up time (Average)	11	sec
Direct Interelectrode Capacitances:°		
Triode Unit:		
Grid to plate	2.5	μμf
Grid to heater and cathode	3.6	μμf
Plate to heater and cathode	0.25	μμf
Diode Units:		
Diode-No.1 plate to triode grid	0.06 max.	μμf
Diode-No.2 plate to triode grid	0.1 max.	μμf
Diode-No.1 cathode to all other electrodes	5	μμf
Diode-No.2 cathode to all other electrodes	5	μμf
Diode-No.1 plate to diode-No.2 plate	0.07 max.	μμf
Diode-No.1 plate to diode-No.1 cathode and heater	1.9	μμf
Diode-No.2 plate to diode-No.2 cathode and heater	1.9	μμf
Diode-No.1 cathode to diode-No.1 plate and heater	4.8	μμf
Diode-No.2 cathode to diode-No.2 plate and heater	4.8	μμf
Diode-No.1 plate to all other electrodes	3	μμf
Diode-No.2 plate to all other electrodes	3	μμf

Characteristics, Class A_1 Amplifier (Triode Unit):

Plate Voltage	100	250	volts
Grid Voltage	-1	-3	volts
Amplification Factor	75	70	
Plate Resistance (Approx.)	21000	28000	ohms
Transconductance	3500	2500	μmhos
Plate Current	1.5	1.6	ma
Grid Voltage (Approx.) for plate μa = 10	-2.5	-5.5	volts

Mechanical:

Operating Position	Any
Maximum Overall Length	2-5/8"
Maximum Seated Length	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip)	2" ± 3/32"
Diameter	0.750" to 0.875"
Dimensional Outline	*See General Section*

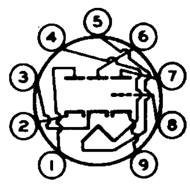
← Indicates a change.

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TWIN DIODE—HIGH-MU TRIODE

Bulb. T6-1/2
Base. . . . . .Small-Button Noval 9-Pin (JEDEC No. E9-1)
Basing Designation for BOTTOM VIEW. 9ER

Pin 1 - Diode-No. 2 Plate
Pin 2 - Diode-No. 2 Cathode
Pin 3 - Diode-No. 1 Cathode
Pin 4 - Heater



Pin 5 - Heater
Pin 6 - Diode-No. 1 Plate
Pin 7 - Triode Plate
Pin 8 - Triode Grid
Pin 9 - Triode Cathode

TRIODE UNIT — AMPLIFIER — Class A_1

→ **Maximum Ratings,** *Design-Maximum Values:*

PLATE VOLTAGE	330	max.	volts
GRID VOLTAGE:			
Positive-bias value	0	max.	volts
PLATE DISSIPATION	1.7	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200▲	max.	volts

Maximum Circuit Values:

Grid-Circuit Resistance	1	max.	megohm

DIODE UNITS — Two

Maximum Ratings, *Design-Maximum Values:*

Values are for Each Unit

PEAK PLATE CURRENT	54	max.	ma
DC PLATE CURRENT	9	max.	ma
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200▲	max.	volts

° Without external shield.
▲ The dc component must not exceed 100 volts.

→ Indicates a change.